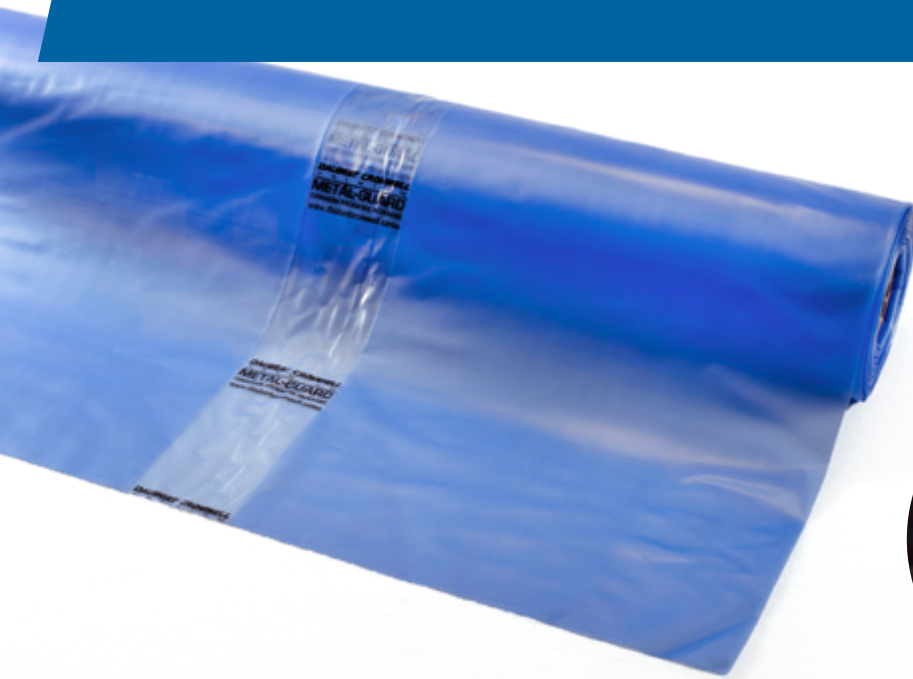
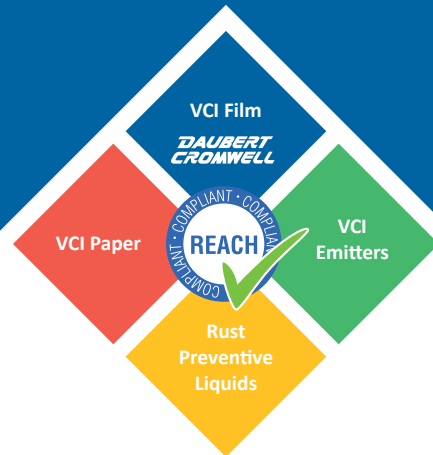


VCI CORROSION PREVENTIVE PACKAGING

CORROSION PREVENTION SOLUTIONS FOR METAL MARKETS



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OUR MISSION

Daubert Cromwell will strengthen and build its core competency as a specialist in corrosion prevention packaging for industry with products and service that satisfy the evolving requirements of our global customers. Through consistent quality, service, innovative and customized corrosion solutions, Daubert Cromwell will be industry's first choice for protecting metal parts and assemblies during shipping and storage.

We will do this by:

- Reducing the cost of corrosion for our customers through the use of high quality, well performing, paper and plastic packaging treated with volatile corrosion inhibitors and by applying best-in-class rust preventive liquids and coatings.

- Deploying our depth of experience and industry-leading products around the world, wherever our customers or their suppliers do business, wherever they need to protect their products.
- Building on our 85-year history as an industry leader by continuing to provide the most valued, dependable protection against corrosion with world class products, industry-leading processes, delivered by talented and dedicated people.
- By focusing on our customers' needs, we will deliver innovative and customized corrosion solutions, drive growth, deliver strong returns for our shareholders, and provide our employees with a rewarding place to work.

- TRGS 615
- TL 8135
- NACE TM0208-2012



How do VCI products work?

For more than 85 years, quality manufacturers have relied on Daubert Cromwell's VCI protection to prevent corrosion-related damage to valuable metals. Daubert Cromwell's innovative, cost-effective solutions ensure efficient, high-quality corrosion protection from manufacture, through transport, to storage.

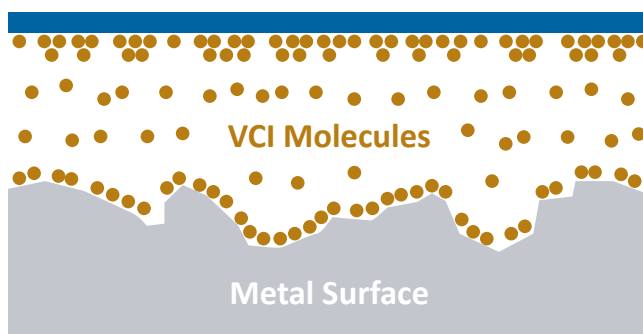
Proven quality as well as customer-oriented service and advice paved the way for Daubert Cromwell as "The Leading Name in Corrosion Prevention®."

Daubert Europe is conveniently headquartered in Munich, Germany, with manufacturing and shipping locations throughout Europe.

How VCI Works

When metals are wrapped or packaged in VCI, the vapors saturate the packaging environment and form a protective molecular layer on the surface of the metal.

VCI Carrier - Film, Paper, Emitters, Oil



This protective layer prevents moisture, salt, dirt, oxygen and other materials from depositing on the metal and causing corrosion. Simply store or ship metal parts in VCI packaging. When the parts are unwrapped, the protective layer immediately begins to dissipate. The metal parts are clean, corrosion-free and ready to use. No washing, dipping or cleaning is necessary.

CONTENTS

COMPANY, PRODUCTS, MARKETS

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- Company profile, our mission
- How VCI Works

VCI FILM

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Premium Metal-Guard®

Corrosion protection film with VCI for protection of ferrous and multi-metals

- Bags, tubes, flat films
- ESD, Stretch film, bubble film, self-adhesive VCI film
- X-O Wrap Shrink film
- Automatic film AT
- Reduced thickness film XR/HS

ClearPak® NITRITE-FREE VCI FILM

- **ClearPak®** VCI Film for protection of ferrous metals, multi-metals and aluminum
- **ClearPak® BIO** Sustainable VCI film made entirely from renewable raw materials. For protection of ferrous metals.

VCI PAPER

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- **MasterShield®** Nitrite-free corrosion inhibitor for ferrous metals
- **PowerShield®** Multi-metal corrosion inhibitor
- **Coppertex®** Protects copper, brass, bronze and other copper alloys
- **Silver Saver®** Anti-tarnish film
- **Alumitex®** Corrosion protection for aluminium, galvanized steel and lead alloys

VCI EMITTERS

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- **Daubrite® Emitters, Foam, Chips** - VCI devices give corrosion protection packaging an important additional dimension

VCI FLUIDS FOR CORROSION PROTECTION

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- **Nox-Rust® & Safecote®** Corrosion protection fluids, oils and coatings

VCI LONG-TERM PACKAGING

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- **VCI Aluminum Composite Film** - heat-sealable, flexible film barrier material
- **VCI Corrugated sheets** are made from polypropylene
- **Embossed VCI Bearing Tape** - Suitable for manual and machine packaging

ENVIRONMENTALLY FRIENDLY PRODUCTS

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- **ClearPak® VCI Corrosion Protection Films** - Free of nitrites and secondary amines
- **Rust Revenge®** Rust Remover- Safe, pH-neutral, non-acidic soaking solution
- **MasterShield® GFE** - Made from recycled paper



CORROSION PROTECTION SOLUTIONS FOR THE METAL PROCESSING INDUSTRY



VCI CORROSION PROTECTIVE FILMS

| | PRODUCT | DESCRIPTION | DELIVERY FORMS | STRENGTH | |
|----------------------|-------------------------------|--|--|------------|---|
| PREMIUM METAL-GUARD® | PMG Film | Corrosion protection film with proprietary blend of contact and volatile corrosion inhibitors in the film LDPE. Protection for ferrous and multi-metal. Acts on both sides in the vapor and contact phase. | Tubular, semi-tubular and flat film Flat and zip lock bags Gusseted bags Bonnets Bubble wrap and pouches | 40μ - 200μ |  |
| | PMG Stretch Film | Stretch film for transport stabilization, protection against moisture and corrosion for ferrous and multi-metal. | Hand stretch film Machine stretch film Available in various widths, designs and colors | 23μ - 70μ |  |
| | X-O Wrap Shrink Film | Heat sealable, shrinkable VCI film. High water vapor barrier, UV-stable, puncture-resistant. Protection for ferrous metal and multi-metal. | Available in various widths and colors | 250μ |  |
| | XR/HS Reduced Thickness Film | Heat-sealable, double-sided VCI film with improved puncture resistance and tensile strength. Material savings of up to 40% possible. Protection for ferrous and multi-metal. | Tubular, semi-tubular and flat film Flat and zip lock bags Side gusset bags Bonnets | 40μ - 200μ |  |
| | PMG Machine Film AT | Heat sealable VCI film for horizontal and vertical tubular bag machines. Easy handling. Two-sided VCI is effective in the steam and contact phase. Protection for ferrous and multi-metal. | Tubular, semi-tubular and flat film | 40μ - 200μ |  |
| | PMG Anti-static VCI Film | VCI film with anti-static additives. For the protection of electronic components, effective on both sides. Surface resistance: 10 ⁹ – 10 ¹² Ω. Protection for ferrous metal and multi-metal. | Tubular, semi-tubular and flat film Flat and zip lock bags Side gusset bags Bonnets | 40μ - 200μ |  |
| | PMG Masking Film | Self-adhesive VCI film protects against scratches and corrosion, and leaves no residue on the metal surface | Available in various widths | 50μ |  |
| CLEARPAK® | CP5000 100% Nitrite-free Film | Nitrite-free VCI film for protection of ferrous metals as well as multi-metals and aluminum. Effective on both sides in the vapor and contact phase. | Tubular, semi-tubular and flat film Flat and zip lock bags Side gusset bags Bonnets Bubble wrap and bags | 40μ - 200μ |  |
| | CP BIO 100% Nitrite-free Film | Sustainable VCI film made entirely from renewable raw materials. Free of nitrites and secondary amines. Protection for ferrous metals. | Tubular, semi-tubular and flat film Flat and zip lock bags Side gusset bags Bonnets Bubble wrap and bags | 40μ - 200μ |  |

Product Specifications

| | Premium Metal-Guard® | Premium Metal-Guard® X-O Wrap Shrink Film | Premium Metal-Guard® Masking Film | Premium Metal-Guard® Stretch Film | ClearPak® | ClearPak® BIO |
|--|----------------------|--|--------------------------------------|--------------------------------------|-----------|---------------|
| Heat Sealable | ✓ | ✓ | | | ✓ | ✓ |
| Shrinkable (60/40) | + | ✓ | | | + | + |
| Effective both sides | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Transparent | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Made from renewable raw materials | | | | | | ✓ |
| Nitrite-Free according to TRGS615 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 100% Nitrite-Free | | | | | ✓ | ✓ |
| Increased mechanical strength | + | ✓ | | | + | + |
| Machine film | + | | | | + | + |
| Static dissipative (ESD) Surface resistance $10^9 - 10^{12} \Omega$ | + | | | | + | + |
| Flame Retardant According to DIN 4102-B2 | + | | | | + | + |
| Custom color & print | ✓ | | | ✓ | ✓ | + |
| REACH Registered | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| UV Protection | + | ✓ | | | + | + |
| TRGS 615 & TRGS 900 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| OEM Certified | ✓ | ✓ | | | ✓ | |
| Fully Recyclable | ✓ | ✓ | | ✓ | ✓ | ✓ |

✓ Standard + Optional

VCI CORROSION PROTECTIVE PAPERS

Choosing the Right VCI Paper

Daubert Europe offers a wide range of VCI packaging papers to meet the unique corrosion protection requirements of metal fabricators, suppliers, shippers and end users.

- Using virgin and recycled kraft paper
- Odorless, safe, non-toxic, recyclable
- Immediate VCI protection
- Simple application

The type of VCI paper you choose depends on the metal to be protected. Daubert Europe has different formulations especially for:

- Ferrous metals
- Multi-metals
- Specialty metals such as copper, silver and aluminum

As a general rule, use heavier weights of paper to protect large or irregularly shaped equipment and components. Use barrier coated papers, such as waxed or poly coated, to keep out moisture and grease. Laminated or reinforced grades offer heavy-duty protection against corrosion-causing contaminants in the environment, plus resist rips and tearing.

Wide Choice

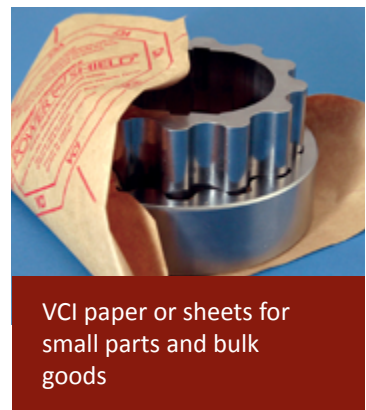
- Rolls, sheet, bags
- Covers, liners and manufactured forms
- Custom cuts
- Chips of all sizes and VCI formulations
- Reinforced and laminated

Custom Printing

Daubert Europe can custom print your VCI packaging paper with your logo for easy brand identification. Your logo, instructions, or message appears in crisp, clear detail.



VCI packaging for gearboxes and ball bearings



VCI paper or sheets for small parts and bulk goods





VCI protection for special metals



Anti-Tarnish Packaging



Silver Saver®

| | PRODUCT | DESCRIPTION | WEIGHT | |
|---|---------------|---|----------|--|
| MasterShield® Ferrous metals | FE50 | Coated on both sides with high-quality, nitrite-free corrosion protection formula. VCI paper bags or sheets for small parts and bulk goods. | 55 g/m² | MASTER  SHIELD® |
| | FE70 | Ideal for packaging during transport and short-term storage. Excellent strength and tear resistance. Nitrite-free. Ideal for packaging heavy metal parts for automotive, construction and manufacturing. | 72 g/m² |  |
| | FE90 | Nitrite-free, ferrous metal protection for large or heavy parts where a higher tear and puncture resistance is required. FE90 is also available as crepe. | 90 g/m² |  |
| | PFE90 | Coated with polyethylene. Nitrite-free. The clear polyethylene layer provides a water vapor barrier for ferrous metal parts during storage and transport. Laminated or reinforced types offer a high level of protection against corrosion-causing environmental influences. High level of tear resistance. | 90 g/m² |  |
| MasterShield® Environmentally Friendly Options | GFE50 | Made from recycled paper. The GFE50 vapor corrosion inhibitor formulation prevents rust and corrosion in ferrous / non-ferrous combinations, including cadmium and galvanized steel. | 55 g/m² | GREEN VCI PAPIER MASTER  SHIELD® |
| | GFE70 | Made from recycled paper. The GFE70 vapor corrosion inhibitor formulation prevents rust and corrosion in ferrous / non-ferrous combinations, including cadmium and galvanized steel. | 75 g/m² |  |
| | GPFE70 | Made from recycled paper. Poly-coated. The GPFE70 vapor corrosion inhibitor formulation prevents rust and corrosion in ferrous / non-ferrous combinations, including cadmium and galvanized steel. | 90 g/m² |  |
| PowerShield® Multi-metal corrosion inhibitor | MM50 | Multi-metal corrosion inhibitor paper. Protects zinc alloys, copper and brass. VCI packaging for gears and ball bearings. | 60 g/m² | POWER  SHIELD® |
| | MM70 | Multi-metal corrosion inhibitor paper. Protects zinc alloys, copper and brass. | 75 g/m² |  |
| | MM90 | Multi-metal corrosion inhibitor paper. Protects zinc alloys, copper and brass. Thicker paper protects large or irregularly shaped parts and components made of zinc alloys, copper, brass. | 100 g/m² |  |
| | PMM70 | Kraft paper, coated with polyethylene. The clear polyethylene layer on the VCI paper provides a water vapor barrier for ferrous/non-ferrous metal parts during storage and transport. Laminated or reinforced types offer high protection against corrosion-causing environmental influences. High tear resistance. | 75 g/m² |  |
| VCI Protection for Specialty metals | Silver Saver® | Protection for silver, gold and precious metals. Bleached kraft paper. Prevents the tarnishing of silver, gold and precious metals. Nitrite and sulfur-free. Anti-tarnish packaging. | 65 g/m² |  |
| | Coppertex® | Protection for copper, brass, bronze and other copper alloys. Nitrite-free. Use as individual part wrapping or as an interleaving layer. | 57 g/m² |  |

The wide range of VCI papers from Daubert Europe meets the corrosion protection requirements of metal processing companies, contract packers and end users. Daubert Europe has different formulations especially for ferrous metals, multi-metals and special metals like copper, silver and aluminum. Wide selection: rolls, sheets, bags; covers, stamped and manufactured shapes; Customized sheets; Chips of all sizes and VCI formulation; Fiber reinforced and laminated. On request, Daubert Europe can print your VCI packaging paper individually with your logo in order to increase your market presence. Your logo, instructions, or message will be highlighted in crisp detail.





For further information you can reach us via Tel. +49-89-4522036-0, or Email: service@daubertcromwell.eu

VCI EMITTERS



Daubrite emitters are anti-corrosion devices designed for use inside closed packaging environments and enclosed spaces:

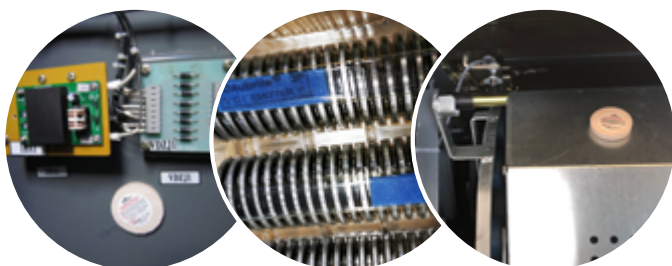
- Electronics and Telecommunications • Container Boxes • Tool Boxes • Junction Boxes
- Mechanical Controls • Shipping Containers and Pallets • Engine Compartment

| BRAND | PRODUCT | DESCRIPTION | PROTECTION VOLUME | DIMENSIONS |
|---|-------------------|--|-------------------|-----------------|
|  | Daubrite 5 Disk | Thin, lightweight disks. Can be positioned in tight, small containers. The adhesive tape on the back sticks to metal cabinets, housings and enclosures. Protects 0.14 m³ for up to 24 months* | 0,14m³ | 55,6 x 4mm |
| | Daubrite 10 Disk | Daubrite 10 protects 0.28 m³ for up to 24 months* | 0,28m³ | 55,6 x 8mm |
|  | Daubrite 1 Packet | Robust, tear-resistant construction in a Tyvek bag. Light, economical. Protects even in the presence of moisture. | 0,028m³ | 40 x 75mm |
|  | Daubrite 3F | Offers shock and corrosion protection for fragile and sensitive components. Soft and abrasion resistant for polished surfaces. Daubrite 3F foam, individually packed. Peelable adhesive strip on the back. | 0,028m³ | 25 x 75 x 8mm |
| | VCI Foam | Other sizes available on request. | 0,22m³ | 250 x 250 x 8mm |
|  | VCI Chips | Uniwrap® MPI-Chips 650 g/m² cardboard, coated with VCI to protect iron, multi-metal or specialty metal formulations. | 0,41m³ | 2,5 x 2,5cm |
| | | Other sizes and weights available on request. | 1,639m³ | 5 x 5cm |

Wherever corrosion can attack and damage exposed metal

Daubrite emitters release protective vapors into the atmosphere and form an invisible layer on the surface of the metal to prevent moisture, salt, dirt, oxygen and other contaminants from depositing on it and causing corrosion.

- Specially developed for steel and multi-metal parts
- Safe, economical, easy to use
- Years of corrosion protection



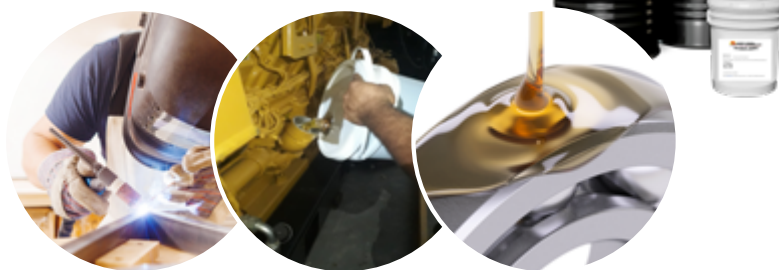
* Max. Protection period when used in a dry, unventilated environment
Other VCI dispenser types and sizes available.
For more information contact
Tel.: +49-89-4522036-0 or Email: service@daubertcromwell.eu




Choosing the right Nox-Rust liquid depends on a number of conditions:

- Type of metal
- Duration of use
- Type of application
- Use outdoors or in enclosures

Typical Applications:

- Apply and preserve
- Final rinse additive
- Edge coating for coils, sheets, etc.
- Lubricant for metalworking
- Closed systems such as boilers, pipes, tanks
- Unprocessed metal parts
- Seasonal equipment such as lawn mowers or snow blowers



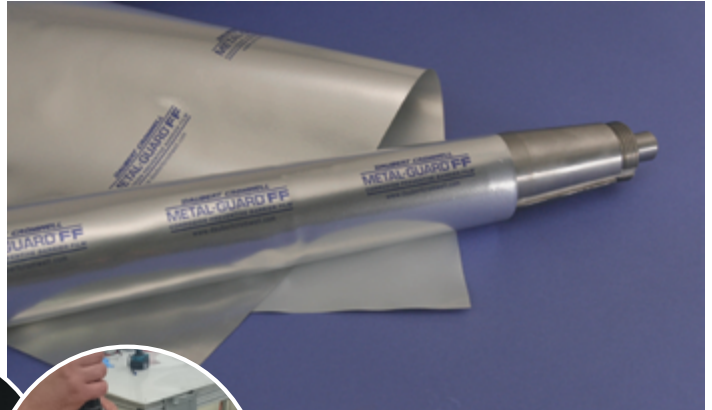
| | PRODUCT | DESCRIPTION | METAL PROTECTION |
|---------------------------|---|--|--|
| Outdoor Use | 3100*  | Amber colored oil, dries as a solid, waxy film that can be processed after 3 to 6 hours. The coating takes 12–24 hours. Remove with solvent or steam. | Transport coating for steel, compatible with non-ferrous metals |
| | 9900 | Environmentally friendly water-based coating with corrosion protection. Low VOC, without solvents, petroleum or harmful chemicals. Can be diluted with water. Dries to a firm, sticky film that is not water-soluble. Compatible with copper and brass. Remove with solvent thinner, steam degreasing, hot alkaline solution or low pressure steam. | Steel and other metals in closed systems; compatible with copper and brass. |
| Lubricants, preservatives | 1100 | Lubricating oil as corrosion protection for metals in closed systems. Prevents rust caused by condensation in the equipment during storage and preservation. Removal not required. | Iron, ferrous metals, steel |
| | 1101 Aerosol  | Use in closed systems in which there is a combination of metals. Can be used undiluted in ferrous and non-ferrous metal systems. Recommended for fuel tanks, gearbox housings, storage tanks, clutch rooms, cranks and gearboxes. Removal not required. | Steel, iron, zinc aluminum  |
| | 1200DC | Environmentally friendly, silica-free solution for closed systems. The water-soluble liquid is applied by spraying. No phosphates, heavy metals or nitrites. Leaves no residue. Preserves devices and piping systems that must be subjected to a hydrostatic test before shipping or storage. No special surface preparation is required before shutting down the system. Easy cleaning with cold water. | Steel and other metals in closed systems; compatible with copper and brass. |
| | Safecote CF | Mixture of inhibitors, emulsifiers and surfactants that deposit a soft, greasy film from a water emulsion system to protect ferrous metal surfaces. Excellent protection from high humidity and salt spray. Remove with solvent, steam degreasing, hot alkaline solution or low pressure steam. Approved for use to prevent corrosion in threaded bolt holes on equipment stored outdoors. | Steel, cast iron, ferrous alloys |
| | Safecote CLV | Water-based transport coating that gives ferrous metals environmentally friendly corrosion protection during storage and shipping. Low VOC, protects metal surfaces by depositing a solid wax film. Remove with solvent, steam degreasing, hot alkaline solution or low pressure steam. | Transit coating for ferrous metals. |
| Special solutions | 5400 | Multi-metal inhibitor for general industrial purposes. As an additive to the washing medium, it leaves a lubrication and corrosion protection film. Does not affect the priming, painting, sealing, welding or cleaning work. Easy to remove with conventional cleaning methods. Approved for use in the automotive industry. Also approved as a safe, ready-to-use, weldable rust preventive liquid. | Cold rolled steel; Sheet metal stamping; Auto parts. |
| | 9300 | Final rinse additive. Prevents corrosion during transport and storage of machined parts, tools, treated steel and assemblies. Water displacing. | Steel |
| | EV9 | A vegetable base (soybean), biodegradable coating to protect metals that are stored or shipped in extreme environmental conditions. Suitable for metal pipes, hoses, parts and devices where environmental concerns are a factor. | Ferrous / non-ferrous |

LONG-TERM PACKAGING

Metal-Guard® FF

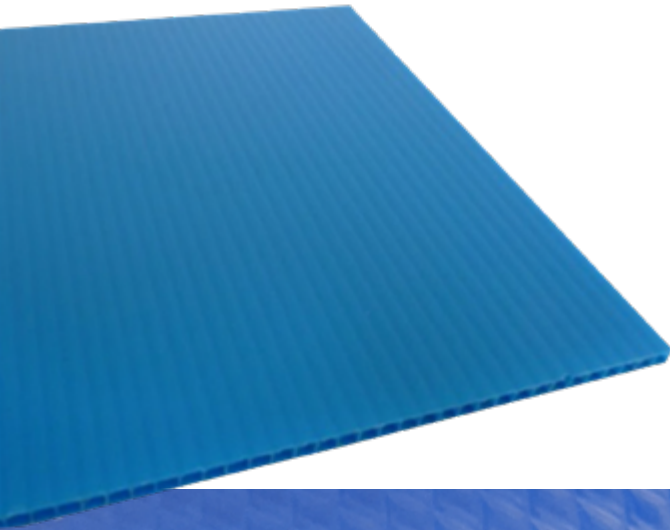
Heat sealable, flexible, vacuum sealable
VCI barrier film

VCI aluminum composite film "Metal-Guard FF" is used for particularly critical long-term storage and transport, where conventional methods would be too time-consuming or costly. Typical applications are packaging of large machines during export or small parts during long-term storage.



VCI Corrugated Sheets

VCI corrugated sheets are made of polypropylene. The corrosion inhibitors work on both sides and offer effective corrosion protection in demanding transport conditions as well as long-term storage. The combination of low weight, high water and abrasion resistance, stability and break resistance make VCI corrugated sheets an excellent alternative to corrugated cardboard or cardboard, e.g. for lining lattice boxes and as an intermediate layer or compartments for separating metal parts.

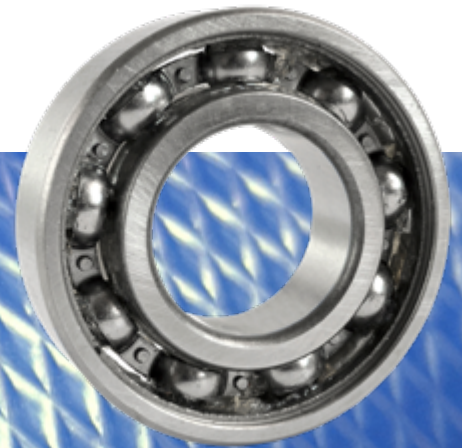


VCI Bearing Tape

VCI Bearing Tape is a specially embossed LDPE film with VCI additive. The film has very good mechanical properties, making it ideal for both manual and machine packaging. The special embossing ensures easy handling and good adhesion. VCI Bearing Tape is enriched with a VCI additive and works both in the contact and in the vapor phase.

- Cost-optimized packaging solution
- Simplification of processes in production
- Increased corrosion protection
- Environmentally friendly solution

Also available without corrosion protection inhibitors



ENVIRONMENTALLY FRIENDLY PRODUCTS



The Daubert group of companies is an environmentally conscious provider of clean and effective VCI packaging materials. Daubert Cromwell and its subsidiaries continue to face the challenges of new international regulations and guidelines that ensure the use of user-friendly and environmentally friendly products.

VCI Corrosion Preventive Films

CLEARPAK® Nitrite-Free VCI Films

- Nitrite-free, amine-free
- Recyclable
- Heat sealable, effective on both sides
- Long-term corrosion protection
- Protects steel and aluminum surfaces
- TL 8135-0043, level 3
- OEM certified
- Fully recyclable



CLEARPAK® BIO

- Plant-based, nitrite-free
- Improved environmental balance through CO₂
- Amine-free
- Compliant with TRGS615, 900 and REACH
- TL8135-0043, level 3
- Heat sealable, effective on both sides
- Fully recyclable



VCI Corrosion Preventive Paper

Daubert Cromwell anti-corrosion formulation now available in environmentally friendly recycled paper!



GREEN VCI PAPIER MASTER VCI SHIELD®

- Prevents corrosion on ferrous metal and steel, including cadmium and galvanized steel
- Made from recycled paper
- Available as sheets or on a roll

Made from recycled paper



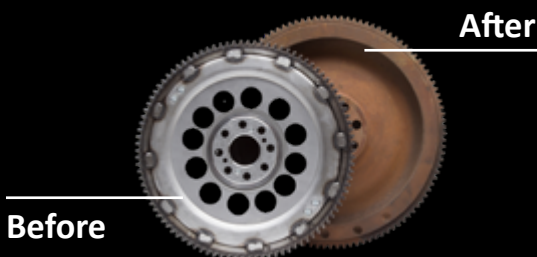
RUST REVENGE®

Acid-free, fast-acting rust remover

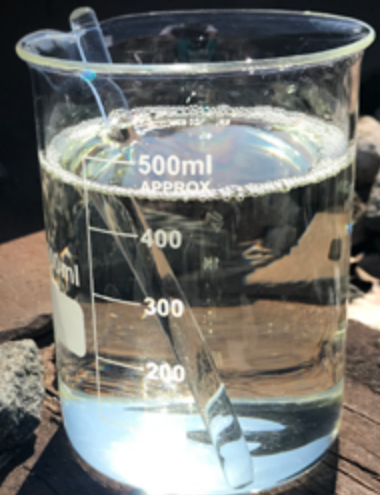


The non-toxic rust removal liquid is a safe, pH-neutral, non-acidic soaking solution. Rust Revenge removes rust from immersed parts such as engines, auto parts, gears, bearings and tools.

- Soaks away rust
- Easy and safe to use. No special treatment is required
- Water-based, harmless, reusable
- Safe on multiple surfaces. No VOCs or HAPs, non-toxic
- pH-neutral, non-acidic and safe for people and the environment



RUST REVENGE
Water-based removes
rust from submerged
parts quickly and
reliably



Your Partner for every VCI solution

Consistent Quality ... Outstanding Service ... Innovative Solutions ... These are the strengths that make Daubert Cromwell the first choice for corrosion protection packaging.

It's a global world

Let our global network find the right corrosion solution for you. Technically savvy sales staff are strategically located across Europe. In addition, a global sales team coordinates customer inquiries from all over the world.

The Daubert 360 Field Support Program is based on a proven 4-step process to determine the correct corrosion solution for shipping metal parts. This free program supports you in determining the suitable packaging so that your packaged metal parts reach their destination without corrosion.



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